National Aeronautics and Space Administration

Lyndon B. Johnson Space Center
Houston, Texas

Stimulating minds

JSC volunteers visit classrooms to promote science, math and engineering. Story on Page 3.

JSC women

Jean Alexander talks about the challenge of suiting astronauts for space flight. Story on Page 4.

Space News Roundup

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JSC joins elite group by cutting pollution in half

By Sandra Parker

JSC is now a member of Clean Industries 2000, the nation's largest statewide public-private partnership to address pollution, in recognition of its effort to reduce environmental hazards at the center.

JSC was invited to become a member by the Texas Natural Resource Conservation Commission, or TNRCC, because of the progress made in reducing the amount of hazardous waste the center generates.

Members of Clean Industries 2000 are committed to carrying out a pollution prevention plan that will reduce the Toxic Release Inventory, chemical releases and/or the generation of hazardous waste by 50 percent or more from 1987 levels by the year 2000. JSC already has met the goal by reducing its hazardous waste generation by 50 percent.

"This year, JSC is the only federal facility that is a new member," said Center Operations Director Jim Hickmon. "Of the 147 current members, only five are federal facilities. This shows a significant commitment on the part of JSC, as a federal facility, to work toward a cleaner environment and environmental excellence."

JSC and other new members will be honored by all three TNRCC commissioners during the Clean Industries 2000 annual event March 17. The function is being held at the Wyndham Greenspoint Hotel and includes a press conference and luncheon. The theme for this year's annual event is "Integrating Environmental Considerations into Business Strategy." The keynote speaker, Shaunna Sowell, vice president of Environment, Safety and Health at Texas Instruments, will discuss "Using Environmental Health and Safety Strategies to Achieve Operational Excellence."

Clean Industries 2000 is a voluntary pollution prevention partnership between industry, local communities and the TNRCC. Participating organizations receive technical training programs along with support and guidance from the Waste Reduction Advisory Committee.

Employees who would like to learn more about JSC's Environmental Program, or the Clean Industries 2000 program, may contact the Environmental Services Office at x33120.

JSC Photo S97-03301 by Steve Candler

JSC workers move a replica of the International Space Station X-38 crew return vehicle into Space Center Houston. The 35-foot lifeboat will be unveiled to SCH visitors Saturday. The arrival of the full-scale mock-up is part of a variety of activities taking place at the visitors center this month.

X-38 debuts at Space Center Houston

A replica of the "lifeboat" astronauts will have available to them on the International Space Station is making its debut at Space Center Houston this Saturday while the staff gears up for Speed Week at the visitor center.

A replica of the X-38 vehicle will be unveiled Saturday. The 35-foot full-scale mock-up will provide insight on how International Space Station crew members could return to Earth in case of an emergency.

Visitors on Saturday also will have the opportunity to view the only Mars meteorite on display in Houston. Discovered in Antarctica, the Elephant Moraine 78001 is one of only 12 identified Mars rocks in the world.

The STS-82 astronauts also will be on hand at 11 a.m. next Friday, March 21, to talk about their recent mission to service the Hubble Space Telescope. The crew will sign autographs and answer questions from visitors.

Speed Week begins March 24 at SCH and will feature the IMAX movie, "Speed." Speakers and speed machines also will be included in the program.

Olympic Gold Medalist Kerri Strug will vault into SCH with two appearances Saturday, March 29. Bruce Bohannon, who holds the world speed record for the fastest ascent in a push plane will be on hand March 24-26 to give daily briefings in the Mission Status Center. Visitors also will have the opportunity to view Bohannon's record-setting plane in the plaza.

Three Sports Car Club of America racers will zoom into SCH Thursday March 27 and cool their tires until March 29. Guests will be able to sit inside their race cars, view videos of actual races and talk with the drivers.

For additional information, call 244-2105.

Life on Mars tops science conference

The stimulating topic of possible primitive life on Mars will be one of the main topics next week as scientists from around the world converge at JSC for the 28th annual Lunar Science Conference.

Several researchers, including the JSC team that startled the world last year with possible evidence of life on Mars, will report new results from the study of the Martian meteorite at a press conference at noon Wednesday at JSC. The event will be covered live on NASA Television.

The conference, sponsored by NASA, JSC and the Lunar and Planetary Institute, will be held primarily at the Gilruth Center and LPI March 17-21.

Oral presentations will be held at the Gilruth beginning at 8:30 a.m. Monday and will end at noon Friday. Additional sessions and poster sessions will be held at LPI from 6:30 to 9:30 p.m. Tuesday and Thursday.

A special plenary session on the question of Mars meteorites and life will be held in Teague Auditorium at 1:30 p.m. Wednesday. The session will begin with the Masursky Lectures by W.A. Cassidy, University of Pittsburgh, and R.O. Pepin, University of Minnesota. Cassidy will speak about his association with the Antarctic Meteorite Program, and Pepin will discuss evidence and arguments that meteorites are chunks of Mars.

The "Symposium on New Results on the Possibility of Life on Mars" will follow the Masursky Lectures at 2:30 p.m. Six teams of researchers will present ongoing work on the Martian meteorite ALHA 84001 and implications for finding ancient life in the rock.

The final session will be a panel discussion, "Life on Mars: Science Issues and Directions." Researchers will discuss how the question of Martian life affects their different areas of expertise and will suggest fruitful directions for future research on this intriguing possibility.

Scientists representing six teams of researchers will present papers on the question of ancient life in the famous Martian meteorite ALHA 84001 during conference sessions.

Among the papers will be one by JSC's David McKay and Everett Gibson and Kathy Thomas-Keprta of Lockheed Martin, Houston, along with colleagues C.S Romanek and C.C. Allen, on possible biofilms—similar to thin films of organic polymers commonly produced by bacteria on Earth—in ALH 84001.

In a disienting paper, J.P. Bradley and Ralph Harvey, Case Western Reserve University, and H.Y. McSween will report that magnetite crystals in the meteorite appear unlike magnetite crystals formed by bacteria.

In addition to the discussions of life on Mars, Torrence Johnson of NASA's Jet Propulsion Laboratory and other scientists working on the Galileo mission to Jupiter and its moons will appear at 2:30 p.m. Monday at the Gilruth Center. The special conference session is entitled "Galileo Mission Results: Overview and Io."

An Internet site that includes complete details of the week's activities and presentation abstracts is located at: http://cass.jsc.nasa.gov/ LSC97/

NASA-ESA node agreement enhances space station

By James Hartsfield

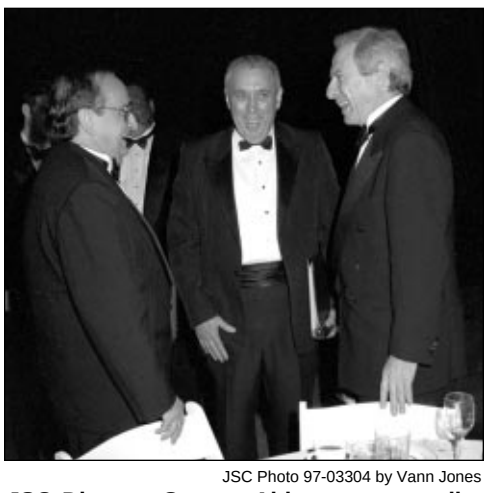
The planned final configuration of the International Space Station will be enhanced under an agreement signed by NASA and the European Space Agency that will have ESA construct two station docking nodes in exchange for the planned NASA launch of the ESA-supplied Columbus laboratory module.

The launch-offset barter agreement, a type of agreement common within the International Space Station Program, exchanges ESA services to construct the nodes—one of which is a new addition—as payment to NASA for the launch of the Columbus module.

Under the agreement, ESA will supply Node 2, a docking node planned to be launched in mid-2000 and connected to the United States Laboratory Module, and Node 3, a new addition to the station to be launched after station assembly is complete. Node 3 will attach to the station's habitation module and provide valuable additional docking ports.

Construction of the two nodes will be delegated to the Italian Space Agency. Plans to convert the Node 1 structural test article, located at Boeing's facilities at the Marshall Space Flight Center, into the Node 2 flight article will be revised accordingly.

Although the construction of the two nodes by ESA is the primary service supplied to NASA under the agreement, the agreement also includes requirements for ESA to supply a crew refrigerator/freezer unit for the station's habitation module; a cryogenic freezer unit for the U.S. laboratory module; and a variety of other minor hardware.



JSC Photo 97-03304 by Vann Jones

JSC Director George Abbey, center, talks with NASA Administrator Daniel S. Goldin, right, and restaurant owner Giuseppe Camera, left, after Abbey received the Space Trophy last week during an awards banquet at Space Center Houston.

Boeing president to visit Houston aboard 'Triple 7'

The latest addition to Boeing's commercial jetliner fleet, the Boeing 777, will bring the company's president to Houston next week.

Boeing Defense and Space Group President Alan Mulally will arrive aboard the "Triple 7," at 2:30 p.m. Wednesday outside NASA's Hangar 990 at Ellington Field.

Mulally will speak with Boeing-Houston employees and International Space Station team members. After Mulally talks, the test version of the Boeing 777—the world's largest twin jet at a passenger capacity of up to 440 will be opened for tours until 4:30 p.m.

All JSC civil service employees, and contractor members of the ISS and space shuttle teams, are invited to attend. For details, check the Employee Information Service at x36765.